EPA Inspections and Sampling done in the Northeast Juneau County

In June of 2017, EPA conducted a production area inspection and file review to determine if Central Sands Dairy (CSD) was in compliance with its Wisconsin Pollutant Discharge Elimination System permit and Nutrient Management Plan.

Ex. 5 Deliberative Process (DP)

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In October of 2017, EPA sampled 13 private wells and four surface water locations in northeast Juneau County, Wisconsin (Table 1 and Table 2). Five private wells had nitrate-nitrite results greater than 20 mg/L; one well result was 10.1 mg/L and the other seven wells were less than 10 mg/L. The drinking water standard is 10 mg/L. Ex. 5 Deliberative Process (DP)

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EPA contacted all 13

private well homeowners by phone to share results and is in the process of providing the laboratory data in writing.

From April 30 - May 3, 2018 EPA sampled five private wells (three were repeated homes from the October 2017 sampling). This sampling was timed to coincide with spring land application. The five private wells samples had results between 21.9 – 40.4 mg/L of nitrate-nitrite. EPA has provided the five people with their laboratory results through e-mail or by mailing them a hard copy. EPA also conducted geo-probe sampling of the groundwater at 41 locations sampling along public road right-of-ways in northeast Juneau County, Wisconsin. At each location, EPA collected samples at two separate depths for a total of 82 samples. EPA is developing a public website to share the groundwater data that will include maps of the geo-probe locations and parameters analyzed.

In total, EPA collected samples from 15 private wells during the October 2017 and May 2018 sampling. EPA collected 4 samples from surface waters (Table 2) in October 2017. EPA collected 82 geo-probe samples along public road right-of-ways in northeast Juneau County, Wisconsin from April 30 through May 3, 2018.

July 2- July 30, 2018 - Next Steps for EPA:

- EPA will be sharing in writing the October results with homeowners who were notified by phone at the time results were received.
- EPA is working to put maps of the groundwater data only (NOT private well information) on to an EPA website accessible to the public.
 - EPA is providing a link to WDNR to review the data prior to the data being made public.
 - o EPA plans to make the data public after WDNR's review.
- EPA after the completion of the groundwater sampling report will set-up a call with WDNR to discuss the results of the sampling investigation.

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July 17, 2018 - Juneau and Wood County Health Departments Public Outreach Education Session:

- Juneau County Health Department is putting together an educational session on July 17, 2018 at the Necedah Town Hall at 6:00 PM to discuss the 104 private wells it tested in Juneau and Wood Counties. Juneau County Health Department is requesting that EPA participate by discussing the sampling that has taken place April 30 May 3, 2018 in Juneau County. The County has also invited WDNR. Even though our analysis of data is not complete and we have an ongoing investigation, Water Division recommends that EPA attend the educational session to describe where EPA collected samples, the types of analysis performed, and general range of the results.
- If possible, EPA would like to have a conference call with Juneau County Health Departments, Wisconsin Department of Natural Resources, Wisconsin Department of Agriculture, Trade, and Consumer Protection, and other participating agencies prior to the July 17, 2018 educational session.

Attachments:

Table 1: Results of private well data collected on October 23-25, 2017

Table 2: Results of surface water data sampled October 25, 2017

Table 3: Results of private wells sampled on May 3, 2018

Table 1: Results of private well data sampled on October 23-25, 2017:

Facility ID	Date of Sampling	Well Depth	Sample Location	County	State	Total Phosphorus (mg/L)	Ammonia- Nitrogen (mg/L)	TKN (mg/L)	Nitrate- Nitrite (mg/L)	Total Coliform	E.coli (MPN/100mL)
S01	October 23, 2017	42 feet	Basement Bypass	Juneau	Wisconsin	0.04	ND*	0.23	37.8	NA	<1
S02	October 24, 2017	60 feet	Kitchen sink	Juneau	Wisconsin	ND*	ND*	0.38	35.2	<1	<1
S03	October 24, 2017	30-35 feet	Outside spigot	Juneau	Wisconsin	ND*	ND*	0.22	5.50	<1	<1
S04	October 24, 2017	30-35 feet	Outside spigot	Juneau	Wisconsin	ND*	ND*	0.2	0.41	<1	<1
S05	October 24, 2017	30 feet	Outside spigot	Juneau	Wisconsin	0.04	ND*	ND	0.10	<1	<1
S06	October 24, 2017	48 feet	Kitchen sink	Juneau	Wisconsin	ND*	ND*	0.25	10.1	<1	<1
S07	October 24, 2017	22 feet	Kitchen Sink	Juneau	Wisconsin	ND*	ND*	0.22	8.59	<1	<1
S08	October 24, 2017	42 feet	Outside spigot	Juneau	Wisconsin	0.05	ND*	ND	4.83	<1	<1
S12	October 24, 2017	80-90 feet	Outside spigot	Juneau	Wisconsin	ND*	ND*	ND	0.23	<1	<1
S14	October 24, 2017	50 feet	Outside spigot	Juneau	Wisconsin	ND*	ND*	0.26	28.2	<1	<1
S15	October 24, 2017	40 feet	Kitchen sink	Juneau	Wisconsin	ND*	ND*	0.20	5.44	<1	<1
S20	October 24, 2017	50 feet	Basement	Juneau	Wisconsin	0.04	ND*	0.25	23.9	1	1
S22	October 25, 2017	Not sure	Kitchen Sink	Juneau	Wisconsin	0.04	ND*	0.28	28.4	91	<1

^{*}ND = Non-detect

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Table 2: Results of surface water data sampled October 25, 2017:

Facility ID	Location of surface water	Date of Surface water	County	State	Nitrate- Nitrite (mg/L)	Total Phosphorus (mg/L)	Ammonia- Nitrogen (mg/L)	TKN (mg/L)	E.coli (MPN/100mL)
S16	S. Petenwell Lake	10/25/2017	Juneau	Wisconsin	0.49	0.09	0.26	1.33	1
S17	N. Petenwell Lake	10/25/2017	Juneau	Wisconsin	0.66	0.11	ND*	1.01	15
S18	Spud Creek	10/25/2017	Juneau	Wisconsin	4.29	ND*	ND*	0.36	20
S19	Cranberry Creek	10/25/2017	Juneau	Wisconsin	0.34	0.45	ND*	0.67	74

^{*}ND = Non-detect

Table 3: Results of private wells sampled on May 3, 2018:

Sample ID	Date	Depth	Location	County	State	Ammonia- Nitrogen (mg/L)	Nitrate- Nitrite (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Chloride (mg/L)	E. coli (MPN/100mL)	UNL* Nitrate	N15*
S01	May 3, 2018	42 feet	Basement bypass	Juneau	Wisconsin	0.0150- 0.0480	34.4	34.4	ND*	32.6	<1		
S02	May 3, 2018	60 feet	Kitchen sink	Juneau	Wisconsin	ND	34.3	34.3	ND*	49.6	<1		
S03	May 3, 2018	Need to contact	Kitchen sink	Juneau	Wisconsin	ND	21.9	21.9	ND*	24.7	<1		
S04	May 3, 2018	Need to contact	Basement bypass	Juneau	Wisconsin	ND	40.4	40.3	ND*	39.7	<1		
S05	May 3, 2018	50 feet	Outside spigot	Juneau	Wisconsin	ND	29.1	29.1	ND*	36.8	<1		

^{*}ND = Non-detect

^{*}UNL = University of Nebraska Laboratory – still evaluating data

^{*}N15= Isotope of Nitrate – still evaluating data

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